ANNUAL REPORT

1989 - 1990

MANITOBA HEALTH RESEARCH COUNCIL

S107 - 750 Bannatyne Avenue

Winnipeg, Manitoba R3E 0W3

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MEMBERS OF THE MANITOBA HEALTH RESEARCH COUNCIL

Dr. A.R. Ronald*, Chairman (until December 1990)
- Head, Department of Medicine, University of Manitoba.

Dr. N.R. Anthonisen** (starting June 1988)
- Dean, Faculty of Medicine, University of Manitoba.

Dr. H.G. Friesen* (until December 1991)
- Head, Department of Physiology, University of Manitoba.

Dr. J.L. Hamerton*, Vice-Chairman (until December 91)
- Head, Department of Human Genetics, University of Manitoba.

Dr. J. Horne (until December 1991)
- Senior Vice President, Corporate Planning & Development.

Dr. J.C. Jamieson (until December 1991)
- Head, Department of Chemistry, University of Manitoba.

Ms N. McCormick (until December 1990)
- President, Corporate Health Works.

Mr. G. Palmer* (until December 1991)
- Sellors & Associates.

Ms K. Scherer (until December 1990)
- Assistant Director, Research & Planning Directorate, Manitoba Department of Health.

Dr. G.C. Sisler (until December 1990)
- Department of Psychiatry, University of Manitoba.

Dr. J. Steele (until December 1990)
- Dean, Faculty of Pharmacy, University of Manitoba.

Prof. F.M. Vaisey-Genser** (starting December 1985)
- Associate Vice-President (Research), University of Manitoba.

* Members of the Executive and Finance Committee
** Appointed by the University of Manitoba

COUNCIL SECRETARIAT

Executive Director	- Dr. Frits C. Stevens
Administrative Secretary	- Lorraine Morley

REPORT OF THE CHAIRMAN

Council had a very busy year and all Council members participated fully in a diverse range of activities. As Chairman, I appreciated the members' willingness to work towards new directions and priorities. In addition to the Executive Committee, two new subcommittees reported to Council: the Public Relations Committee, chaired by Ms Kathleen Scherer and the Strategic Health Research Initiative Committee, chaired by Dr. John Hamerton. Council directed its efforts at four major priorities during the past 12 months. These were as follows:

Continuation of Council's Major Programs. Funds were allocated to scientists for operating grants, equipment, career support, and graduate training. In the regular grants competition a total of $1,941,840 were allocated of which 44.9% went to operating grants, 53% to personnel awards and 2.1% to equipment grants. Approximately 30% of the requests were funded and the selection of successful grants and awards was based on peer review; this peer review system has proved itself to be the most equitable way of dealing with the considerable demands on our limited resources.

Council awarded thirty operating grants totalling $872,600. Three new scholarship awards were funded making for a total of four individuals currently supported as Manitoba Health Research Council Scholars. In addition, thirteen individuals received postdoctoral fellowships and thirty-seven were awarded graduate studentships.

Because of increasing shortfalls in national funds available for research equipment, Council also held a special equipment competition in December 1989. Reserve funds were used to award $278,556 to eighteen scientists. An indication of the need is given by the fact that Council received fifty-seven applications totalling $866,475.

Implementation of the Strategic Health Research and Development Funding Initiative. Negotiations with the Provincial Departments of Health and Industry, Trade and Tourism resulted in Council being asked to administer a $4 million Strategic Health Research Development Fund with funds made available to the Province under the provisions of Bill C-22, the Canada Act to amend the Drug Patent Act. Under the leadership of Dr. John Hamerton, Council established a new committee and two cycles of competition were completed. Council approved eight grants

totalling $643,940 and these were matched with $863,880 in private sector funds. The scientific community is only now beginning to develop its expertise in establishing liaisons with industry and in developing joint initiatives. We anticipate continuing with three cycles of competition each year and hope to receive many more applications from Manitoba health researchers. In making these awards, continuing discussion is occurring about the relative weighting of scientific excellence versus the potential for economic benefits to the institutions, the Province and Canadian society at large. Manitoba researchers have continued to be unsuccessful in competing for funding from the Medical Research Council University-Industry program. We hope that the Strategic Health Research Development Initiative will enable us to become more competitive in the future and that more industrial economic benefits will accrue to Manitobans as a result.

Review of Council's Mission, Goals and Objectives. It has become apparent to Council that many issues affecting the provincial health research enterprise are not being addressed very effectively. This results from a lack of leadership in the coordination of the development of research space and human resources. In discussion with the Minister, Council was invited to consider an enlarged mandate including a role in coordinating provincial health research. It became apparent to Council, after several limited discussions, that this required a much more extensive review with input from health researchers, institutions, funding agencies and government. In order to do this, Council has set up a planning subcommittee that will gather information, review Council's mandate, and consider an expanded role for Council in planning and advocating health research in Manitoba. These issues will then be widely discussed at a retreat. It is hoped that this process will ensure that Council will fulfil the expectations of health researchers, other funding agencies and the community at large.

Public Relations. A Public Relations Committee chaired by Kathleen Scherer developed a series of initiatives designed to enhance Council's image. These include the following:

* design of a new logo and development of an information package for wide distribution
* planning for the celebration of Council's 10th anniversary with a Symposium scheduled for April 18, 1991
* creation of a new funding program to allow Council to participate in health research conferences and symposia.

A great many issues require the ongoing attention of Council as it completes its 10th year and prepares itself for the next decade. These include the need for a newsletter to all Manitoba health researchers to improve communications and to enhance the image of Council, and the need for Council to be more pro-active in areas such as the ethics of human experimentation, animal care, hospital based research institutions, fraud in science and many others. Council must also consider the need for reshaping its present programs and anticipating and seizing the future. Our Province offers unique opportunities in health research with a very committed and capable group of scientists. Council must be innovative and prepared to take risks while continuing to recognize that scientific excellence cannot be mandated or channelled.

As I complete my term as Chairman, I want to express my thanks to Mr. Orchard for giving me the opportunity to chair Council for the past eighteen months. I thank all the Council members for their willingness to accept leadership responsibility and for the many hours spent on Council activities.

The success of Council to a very considerable extent has depended upon the administrative leadership given by its executive director, Dr. Frits Stevens. It has been a rewarding experience to work both with him and with Council's secretary, Mrs. Lorraine Morley.

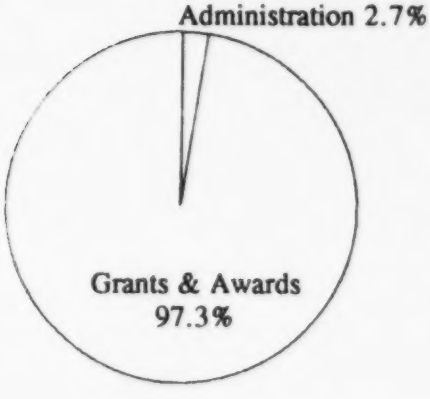
Respectfully submitted

Allan R. Ronald, M.D.
Chairman

OVERVIEW OF 1989-90 EXPENDITURES

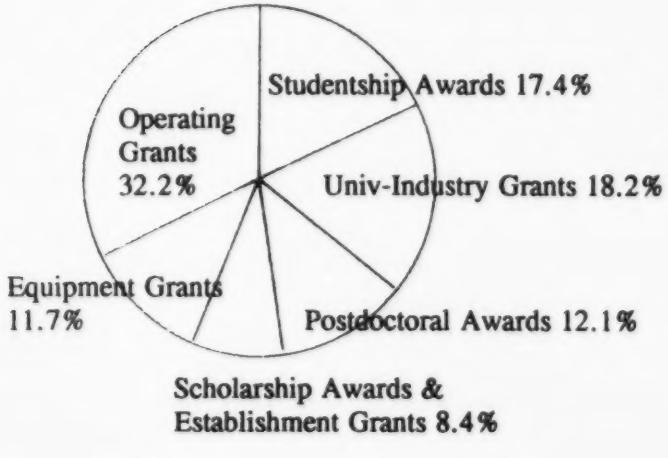
Total Expenditures

$2,790,670



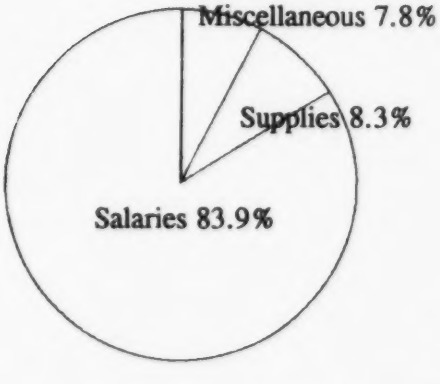
GRANTS AND AWARDS

$2,714,336



ADMINISTRATION

$ 76,334



Manitoba

THE MANITOBA HEALTH RESEARCH COUNCIL

REPORT OF THE PROVINCIAL AUDITOR'S OFFICE

We have examined the financial statements, being Exhibits A and B and Schedule 1, of The Manitoba Health Research Council for the fiscal year ended March 31, 1990. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the Council as at March 31, 1990 and the results of its operations for the year then ended in accordance with the accounting policies stated in note 3 to the financial statements applied on a basis consistent with that of the preceding year.

F. H. Jackson, CA,
Provincial Auditor.

June 1, 1990
Winnipeg, Manitoba

EXHIBIT A

THE MANITOBA HEALTH RESEARCH COUNCIL

Balance Sheet
as at March 31, 1990

	1990	1989
ASSETS		
Cash and short term investments	$ 2,777,461	$ 327,186
Grant receivable from Manitoba Lotteries Foundation	203,053	631,811
Accrued interest	9,364	1,663
	$ 2,989,878	$ 960,660
LIABILITIES AND UNEXPENDED FUNDS		
Accounts payable	$ 3,899	$ 3,305
Research grants payable	838,322	317,483
The Manitoba Health Research Council Fund		
Reserve for Future Research Fund Account, Note 4	-	250,000
Reserve for Strategic Health Research and Development Fund, Note 5	1,649,792	
General Fund Account	497,865	389,872
	2,147,657	639,872
	$ 2,989,878	$ 960,660

Approved on behalf of the Council:

DIRECTOR

DIRECTOR

THE MANITOBA HEALTH RESEARCH COUNCIL

Statement of Revenues, Expenditures and Fund Balances
for the year ended March 31, 1990

	Reserve Fund	Strategic Health Research and Development Fund
Revenues:		
Grants from the Manitoba Lotteries Foundation	$	$
Grant from the Province of Manitoba		2,000,000
Returned grant funds		
Interest, Note 3(e)		181,899
	0	2,181,899
Expenditures:		
Research grants, Note 3(b)		493,940
Administration expenses, Schedule 1		38,167
	0	532,107
Revenues (under) over expenditures	0	1,649,792
Balance, beginning of year	250,000	
Funds transferred from (to)	(250,000)	
Balance, end of year	$ 0	$ 1,649,792

EXHIBIT B

IL

s and Fund Balances

	Reserve Fund	Strategic Health Research and Development Fund	General Fund	1990	1989
ies Foundation	$	$	$ 1,947,306	$ 1,947,306	$ 1,191,134
toba		2,000,000		2,000,000	
			78,068	78,068	44,422
		181,899	91,182	273,081	62,363
	0	2,181,899	2,116,556	4,298,455	1,297,919
		493,940	2,220,396	2,714,336	1,379,748
le 1		38,167	38,167	76,334	55,603
	0	532,107	2,258,563	2,790,670	1,435,351
	0	1,649,792	(142,007)	1,507,785	(137,432)
	250,000		389,872	639,872	777,304
	(250,000)		250,000	0	
	$ 0	$ 1,649,792	$ 497,865	$ 2,147,657	$ 639,872

THE MANITOBA HEALTH RESEARCH COUNCIL

Administration Expenses
for the year ended March 31, 1990

	1990	1989
Accounting and audit	$ 3,100	$ 1,625
Bank charges	125	125
Council and committee expenses	782	493
Insurance	125	125
Office equipment	2,595	2,132
Postage and delivery	1,350	995
Printing and stationery	3,757	1,936
Salaries and benefits	64,018	47,725
Telephone	482	447
Total administration expenses, Exhibit B Note 3	$ 76,334	$ 55,603

THE MANITOBA HEALTH RESEARCH COUNCIL

Notes to the Financial Statements
for the year ended March 31, 1990

1. INCORPORATION AND FUNCTION

The Manitoba Health Research Council was established by The Manitoba Health Research Council Act to promote and assist basic, clinical and applied research in the health sciences in Manitoba. The Council relies entirely on grants from the Province of Manitoba and the Manitoba Lotteries Foundation for continued existence.

2. CHARITABLE STATUS

The Manitoba Health Research Council is a registered charity within the meaning of the Income Tax Act.

3. SIGNIFICANT ACCOUNTING POLICIES

(a) An accrual basis of accounting is used except for office equipment purchases, which are charged to expenditures in the year of acquisition.

(b) Research grants are charged to expenditures when funding is approved by the Council.

(c) Facilities are provided free of charge from the University of Manitoba. Legal services, when required, are provided free of charge from Legislative Council. The value of these services has not been determined for inclusion in these financial statements.

(d) Administration expenses are allocated equally to the General Fund and the Strategic Health Research and Development Fund.

(e) Interest income is allocated to the General Fund and the Strategic Health Research and Development Fund based on their pro-rata share of the monthly Fund balance.

4. RESERVE FOR FUTURE RESEARCH FUND ACCOUNT

The Reserve fund is used to increase program levels and fund priority research. During the year, Council authorized the transfer of $250,000 to the General Fund for supplementary equipment grants.

5. STRATEGIC HEALTH RESEARCH AND DEVELOPMENT PROGRAM

The Province of Manitoba established a Fund of $ 4 million to be allocated to qualified research and development projects in the health industry sector in Manitoba over the next four years. The Fund is administered by the Council which received $2 million of this amount during the year ended March 31, 1990.

MANITOBA HEALTH RESEARCH COUNCIL 1989-90 COMPETITION

OPERATING & EQUIPMENT SCIENTIFIC REVIEW COMMITTEE

Dr. A. Froese (Chairman), Department of Immunology,
University of Manitoba.

Dr. K. Dakshinamurti, Department of Biochemistry & Molecular Biology,
University of Manitoba.

Dr. J. Davie, Department of Biochemistry & Molecular Biology,
University of Manitoba.

Dr. T.A. Dick, Department of Zoology,
University of Manitoba.

Dr. J. Geiger, Department of Pharmacology & Therapeutics,
University of Manitoba.

Dr. J. Johnston, Department of Internal Medicine,
University of Manitoba.

Dr. B. Kunz, Department of Microbiology,
University of Manitoba.

Dr. R.Y.K. Man, Department of Pharmacology & Therapeutics,
University of Manitoba.

Dr. D. McCrea, Department of Physiology,
University of Manitoba.

Dr. L.J. Murphy, Department of Internal Medicine,
University of Manitoba.

Dr. K. Oen, Department of Pediatrics & Child Health,
University of Manitoba.

Dr. B. Penner, Department of Internal Medicine,
University of Manitoba.

Dr. G. Pierce, Department of Physiology,
University of Manitoba.

Dr. G. Sutherland, Department of Surgery,
University of Manitoba.

PERSONNEL REVIEW COMMITTEE

Dr. J. Evans (Chairperson), Department of Human Genetics,
University of Manitoba.

Dr. J.M. Bowness, Department of Biochemistry & Molecular Biology,
University of Manitoba.

Dr. J. Dodd, Department of Physiology,
University of Manitoba.

Dr. I. Hamilton, Department of Oral Biology,
University of Manitoba.

Dr. R.D. Hill, Department of Plant Science,
University of Manitoba.

Dr. F. Jay, Department of Medical Microbiology,
University of Manitoba.

Dr. L. Jordan, Department of Physiology,
University of Manitoba.

Dr. W. Lautt, Department of Pharmacology & Therapeutics,
University of Manitoba.

Dr. L. Nicolle, Department of Internal Medicine,
University of Manitoba.

Dr. B. Schacter, Department of Internal Medicine,
University of Manitoba.

Dr. R. Shiu, Department of Physiology,
University of Manitoba.

Dr. R. Woods, Department of Biology,
University of Winnipeg.

SOCIAL & BEHAVIOURAL REVIEW COMMITTEE

Dr. N.L. Roos (Chairperson), Department of Community Health Sciences,
University of Manitoba.

Dr. B. Bolster, Department of Psychology,
University of Winnipeg.

Dr. J.H. Brown, Department of Psychiatry,
University of Manitoba.

Prof. K. Chalmers, School of Nursing,
University of Manitoba.

Ms J. Clinch, Department of Health,
Province of Manitoba.

Dr. L. Garro, Department of Community Health Sciences,
University of Manitoba.

Dr. K. Wilson, Department of Psychiatry,
University of Manitoba.

Dr. K. Young, Department of Community Health Sciences,
University of Manitoba.

LIST OF OPERATING GRANTS

Investigator(s), Department, Institution. Project Title.	Award Amount
AMBTMAN, R., Planning & Research, Alcoholism Fdn. of Manitoba. Evaluation of a province-wide residential treatment program for chemical dependence.	$ 25,000
ANDERSON,J.E., Anatomy, U. of Manitoba. Regenerated Mdx muscle.	31,000
ARTHUR, G., Biochemistry & Molecular Biology, U. of Manitoba. Mechanism of inhibition of tumor growth and metastasis by alkyl lysophospholipids.	32,000
BECKER, A.B., Pediatrics & Child Health, U. of Manitoba. Development of monoclonal anticanine IgE.	22,000
BELIK, J. Pediatrics & Child Health, U. of Manitoba. Developmental changes in pulmonary vascular smooth muscle and its relation to the pulmonary hypertension syndrome of the newborn.	36,000
BOSE, Ratna, Pharmacology & Therapeutics, U. of Manitoba. Regulation of excitation-contraction coupling in smooth muscle: a study with amiloride analogs.	29,000
BOWNESS, J.M., Biochemistry & Molecular Biology, U. of Manitoba. Origin and identification of large amino-propeptide antigens in surplus sera from patients with myocardial damage.	15,400
BRANDES, L.J., Cell Biology Institute, Manitoba Cancer Treatment & Research Foundation. A study of the role of calcium and histamine as intracellular mediators of cell proliferation.	37,000
CATTINI, P.A. & LUDWIG, S., Physiology, U. of Manitoba. A molecular and cellular approach to diabetes in pregnancy.	31,000
CHAPPELL, N.L. & NOVAK, M., Sociology, Centre on Aging, U. of Manitoba. Nursing assistant stress and the cognitively impaired elderly.	30,000

Operating Grants (continued)

CHOW, D.A., Immunology, U. of Manitoba. Tumor progression: resistance to cytolysis.	$ 38,000
DUNSCOMBE, P.B., Medical Physics, Manitoba Cancer Treatment & Research Foundation. Radiotherapy portal verification and rectification..	27,500
GEIGER, J.D., Pharmacology & Therapeutics & NAGY, J.I., Physiology, U. of Manitoba. Pharmacological characterization and anatomical localization of the calcium-ryanodine receptor complex in the CNS.	34,900
KARDAMI, E., Physiology, U. of Manitoba. Basic fibroblast growth factor in the development of cardiac hypertrophy.	40,000
KARIM, A.C., Anatomy, U. of Manitoba. Insulin's effect on 3H-glucose incorporation into the enamel organ and on molor tooth development in vitro.	25,400
KROEGER, E.A., Physiology, U. of Manitoba. Effect of Na/K transport and arachidonic acid metabolism on regulation of tone in airway smooth muscle.	37,000
LaBELLA, F.S., Pharmacology & Therapeutics & TEMPLETON, F.J., Pharmacy, U. of Manitoba. Detection of endogenous digitalis-like factor by means of monoclonal antibodies.	25,000
LAUTT, W.W., Pharmacology & Therapeutics, U. of Manitoba. Hepatic biliary system: chronic occlusion and pressure elevation in bile duct pressure.	38,000
McCLARTY, G.L. & BRUNHAM, R.C., Medical Microbiology, U. of Manitoba. Nucleotide acquisition as the biochemical basis for chlamydial parasitism.	36,000
MILNES, A.R., Pediatric Dentistry, U. of Manitoba. An assessment of the oral health status of mentally retarded children residing in Winnipeg.	30,000
MURPHY, L.C., Biochemistry & Molecular Biology, U. of Manitoba. Characterization of a putative calcium-binding protein which is associated with the prolactin receptor.	34,000

Operating Grants (continued)

PARASKEVAS, F., Cell Biology Institute, Manitoba Cancer Treatment & Research Foundation. Regulation of lymphokine production by T cells.	$ 36,000
ROCKMAN, G.E., Psychology, U. of Winnipeg. Enriched environment and voluntary ethanol intake.	19,400
ROSS, C.A., Psychiatry, U. of Manitoba & NORTON, G.R., Psychology,U. of Winnipeg. Prevalence of dissociative symptoms and disorders among psychiatric inpatients.	30,500
SHIU, R.P.C. & ROBERTSON, M.T., Physiology, U. of Manitoba. Role of prolactin in regulation of salt in sweat in cystic fibrosis.	24,000
STAMBROOK, M. & PETERS, L., Psychiatry, CARDOSO, E., Surgery, GILL, D. & DUBO, H., Medicine, U. of Manitoba, EDIE, S., Occupational Therapy, MILES-TAPPING, C., Physiotherapy & COUSINS, B., Speech Therapy, Health Sciences Centre. Neurobehavioural and psychosocial recovery from closed head injury.	22,500
TEFFT, B., Psychology, SEGALL, A., Sociology & TRUTE, B., Social Work, U. of Manitoba. A follow-up study of public responses to the mentally disordered in the community.	27,500
WILSON, K.G., Psychiatry, U. of Manitoba. Medical utilization in panic disorder.	13,000
WOROBEC, E.A., Microbiology, U. of Manitoba. The role of porin proteins in the resistance of Serratia marcescens to beta-lactam antibiotics.	20,500
YOUNG, T.K. & ROOS, N.L., Community Health Sciences, U. of Manitoba. The burden and impact of diabetes in Manitoba: a pilot study.	25,000
	$ 872,600

EQUIPMENT GRANTS

Investigator(s), Department, Institution. Equipment Required.	Award Amount
GEIGER, J.D., Pharmacology & Therapeutics, U. of Microwave sacrifice unit.	$ 7,415
KARDAMI, E., Physiology, U. of Manitoba. Leitz Kryostat 1720.	14,000
WILSON, K.D., Psychiatry, U. of Manitoba. Psychophysiology laboratory equipment.	20,000
	$ 41,415

LIST OF PERSONNEL AWARDS

SCHOLARSHIP AWARD RENEWALS

MOHAPATRA, S.S., Immunology, U. of Manitoba. Synthesis and modification of pollen allergen(s) by recombinant DNA technology.	$ 38,000
	$ 38,000

SCHOLARSHIP AWARDS

ANDERSON, J.E., Anatomy, U. of Manitoba. Regenerated Mdx muscle.	$ 38,000
McCLARTY,G.A.,Medical Microbiology, U. of Manitoba. Reduction of ribonucleotides and DNA synthesis in chlamydiae.	38,000
WATSON, W.T.A., Pediatrics & Child Health, U. of Manitoba. Interrelationships of allergic disease.	38,000
	$ 114,000

ESTABLISHMENT GRANTS

ANDERSON, J.E., Anatomy, U. of Manitoba. Regenerated Mdx muscle.	$ 25,000
McCLARTY,G.A.,Medical Microbiology, U. of Manitoba. Reduction of ribonucleotides and DNA synthesis in chlamydiae.	25,000
WATSON, W.T.A., Pediatrics & Child Health, U. of Manitoba. Interrelationships of allergic disease.	25,000
	$ 75,000

POSTDOCTORAL FELLOWSHIPS

Fellow (Supervisor), Department, Institution. Project or Field of Research.	Award Amount
BLACK, C.D. (Roos, N.P.), Community Health Sciences, U. of Manitoba. Health services research: applied training.	$ 34,150
CHEUK, P-K.T. (Hammond, G./Horne, J.), Community Health Sciences, U. of Manitoba. Health economics/health services research.	21,480
CORREA, A.M.E. (Mink, S./Kepron, W.), Respiratory Investigation Unit, Health Sciences Centre. Cardio-pulmonary physiology.	34,150
GHAHARY, A. (Murphy, L.J.), Physiology, U. of Manitoba. Molecular endocrinology.	22,910
KRUEGER, K.S. (Shiu, R.P.C.), Physiology, U. of Manitoba. Hormonal control of the proliferation of human breast cancer cells.	22,910
LI, P. (Smyth, D.D.), Pharmacology & Therapeutics, U. of Manitoba. Renal pharmacology.	24,340
MASUDA, A. (Friesen, H.), Physiology, U. of Manitoba. Endocrinology, cell biology.	24,340
MILES-TAPPING, C. (Chappell, N.), Centre on Aging, U. of Manitoba. Gerontology/sociology.	24,340
PENG, Z. (Becker, A./Simons, E.), Pediatrics & Child Health. Allergy and clinical immunology.	24,340
SAXENA, S.P. (Gerrard, J.M.), Cell Biology Institute, Manitoba Cancer Treatment & Research Foundation. Platelet biochemistry.	24,340
SCHWARZ, L.C. (Greenberg, A.H.), Cell Biology Institute, Manitoba Cancer Treatment & Research Foundation. The roles of growth factors and oncogenes in metastasis.	22,910

Postdoctoral Fellowships (continued)

SHARMA, S.K. (Dakshinamurti, K.), Biochemistry & Molecular Biology, U. of Manitoba. Brain cellular response to neurotransmitter - precursor loading.	$ 24,340
YU, J. (Bose, R.), Pharmacology, U. of Manitoba. Cardiovascular and respiration.	24,340
	$ 328,890

GRADUATE STUDENTSHIP RENEWALS

Student (Supervisor), Department, Institution. Project or Field of Research.	Award Amount
BELSHAM, D.D. (Wrogemann, K.), Biochemistry & Molecular Biology, U. of Manitoba. Biochemical genetics.	$ 12,755
CHERNOMAS, W.M. (Lenz, E.), School of Nursing, U. of Maryland. Nursing - Ph.D.	12,755
CHOY, B.B.K. (Wright, J.A.), Cell Biology Institute, Manitoba Cancer Treatment & Research Foundation. Cancer research.	12,755
COPELAND, K.R. (Yatscoff, R.W.), Biochemistry & Molecular Biology, U. of Manitoba. Ph.D. in biochemistry.	12,755
CURRIE, P.J. (Wilson, L.), Psychology, U. of Manitoba. Physiological psychology: feeding behaviour, regulation of food intake.	12,755
FEDIRCHUK, B.A. (Shefchyk, S.), Physiology, U. of Manitoba. Neurophysiology.	12,755
GILMAN, D.A. (Tefft, B.), Psychology, U. of Manitoba. Clinical psychology, Ph.D.	12,755
JIANG, H. (Stephens, N.L.), Physiology, U. of Manitoba. Respiratory physiology.	12,755
KIRK, J-A.M. (Grant, K.), Sociology, U. of Manitoba. Sociology.	12,755

Graduate Studentship Renewals (continued)

LA CROIX, E.L. (Froese, A.), Immunology, U. of Manitoba. Allergy research.	$ 12,755
MacDONALD, G.C. (Gartner, J.), Pathology, U. of Manitoba. Immunology.	12,755
MARKESTEYN, T.J. (Marcuse, F.L.), Psychology, U. of Manitoba. Victimization.	12,755
NESS, D.V. (Lebow, M.D.), Psychology, U. of Manitoba. Ph.D. in clinical psychology.	12,755
SALADIN, L.K. (Bruni, J.), Anatomy, U. of Manitoba. Neuroanatomy.	12,755
SCHONWETTER, D.J. (Janisse, M.P.), Psychology, U. of Manitoba. Field of experimental and personality psychology.	12,755
YANG, C. (Jay, F.T.), Medical Microbiology, U. of Manitoba. Molecular biology, biochemistry, microbiology.	12,755
	$ 204,080

GRADUATE STUDENTSHIP AWARDS

Student (Supervisor), Department, Institution. Project or Field of Research.	Award Amount
ABDELHALEEM, M.M. (Sabbadini, E.), Immunology, U. of Manitoba. Immunology.	$ 12,755
BLANDFORD, D.E. (Smyth, D.D.), Pharmacology & Therapeutics, U. of Manitoba. Renal and cardiovascular pharmacology.	12,755
BUCKLEY,N.D. (Hamilton, I.), Oral Biology, U. of Manitoba. Oral Biology.	12,755
CARVALHO, R.S. (Yen, E.H.K.), Preventive Dental Science, U. of Manitoba. Craniofacial growth and development.	12,755

Graduate Studentships (continued)

CASEY, G. (McAlpine, P.J.), Human Genetics, U. of Manitoba. Human genetics.	$ 12,755
FELDKIRCHER, K.M. (Wilson, L.), Psychology, U. of Manitoba. Psychobiology.	12,755
GIESBRECHT, G.G. (Younes, M.), Physiology, U. of Manitoba. Physiology and control of respiration in exercise and disease.	12,755
GU, M. (Man, R.Y,K.), Pharmacology & Therapeutics, U. of Manitoba. Cardiovascular pharmacology.	12,755
HACK, T.F.L. (Dyck, D.), Psychology, U. of Manitoba. Clinical psychology training program.	12,755
HAMELIN, K.J. (Bramadat, I.), School of Nursing, U. of Manitoba. Nursing.	12,755
LECO, K.J. (Matusik, R.J.), Physiology, U. of Manitoba. Physiology (molecular biology).	12,755
LUO, J. (Murphy, L.J.), Physiology, U. of Manitoba. Molecular mechanism involved in growth hormone action.	12,755
McMASTER, C.R. (Choy, P.C.), Biochemistry & Molecular Biology, U. of Manitoba. Biochemistry (lipid biochemistry).	12,755
MENG, H. (Pierce, G.N.), Physiology, U. of Manitoba. Ion transport, cardiovascular physiology.	12,755
MEYER, N.E. (Schallow, J.), Psychology, U. of Manitoba. Clinical psychology.	12,755
MILLER, T.L. (Murphy, L.C.), Biochemistry & Molecular Biology, U. of Manitoba. Cell biology and endocrinology of breast cancer cells.	12,755
NESCA, M. (Kowlack, D.), Psychology, U. of Manitoba. Type A behaviour pattern, coronary artery disease, REM deprivation.	12,755

Graduate Studentships (continued)

NG, P.K. (Dakshinamurti, K.), Biochemistry & Molecular Biology, U. of Manitoba. Enzymology and protein purification.	$ 12,755
WONG, L.T.Y. (Geiger, J.D.), Pharmacology & Therapeutics, U. of Manitoba. Neuropharmacology.	12,755
YANG, W. (Mowat, M.), Cell Biology Institute, Manitoba Cancer Treatment & Research Foundation. Cancer research.	12,755
ZHONG, G. (Brunham, R.C.), Medical Microbiology, U. of Manitoba. Microbiology.	12,755
	$ 267,855

1989 SUPPLEMENTARY EQUIPMENT GRANT COMPETITION

Investigator(s), Department, Institution/Company. Project Title.	Award Amount
ANDERSON, J.E., Anatomy, U. of Manitoba. Image analysis system.	$ 20,000
ARTHUR, G., Biochemistry & Molecular Biology, U. of Manitoba. Inverted microscope.	3,500
BELIK, J., Dept. of Pediatrics, U. of Manitoba. Lever system for smooth muscle mechanics.	15,600
BOLSTER, R.B., Psychology, U. of Winnipeg. Laboratory computer system.	10,000
CHOY, P.C., Biochemistry & Molecular Biology, U. of Manitoba. Radiochromatogram scanner.	23,850
GEIGER, J.D., LaBELLA, F.S., SMYTH, D., MAN, R. & SITAR, D., Pharmacology & Therapeutics, U. of Manitoba. Ultracentrifuge rotor.	14,700
GERRARD, J.M. & ISRAELS, S.J., Cell Biology Institute, Manitoba Cancer Treatment & Research Foundation. Platelet lumi-aggregometer.	16,400
KANFER, J.N., Biochemistry & Molecular Biology, U. of Manitoba. Liquid scintillation counter.	25,000
LeBLANC, N., Cardiovascular Science, St. Boniface Research Centre. Inverted microscope.	23,800
MINK, S.N., Medicine, U. of Manitoba. Amplifiers.	7,900
MOFFATT, M.E.K., Community Health Sciences, U. of Manitoba. Electrocardiograph.	10,481
MURPHY, L.C., Biochemistry & Molecular Biology, U. of Manitoba. Spectrophotometer.	6,000
MURPHY, L.J., Physiology, U. of Manitoba. Western blot equipment.	10,000

1989 Supplementary Equipment Grants (continued)

NATH, A., Medicine, U. of Manitoba. Microscope.	$ 14,000
PIERCE, G.N., Cardiovascular Science, St. Boniface Research Centre. UV - detector.	18,725
ROOS, L.L., ROOS, N.P., COHEN, M.M. & BLACK, C., Community Health Sciences, U. of Manitoba. SPARCstation workstation.	25,000
SEHON, A., Immunology, U. of Manitoba. Ultracentrifuge.	25,000
WROGEMANN, K., Biochemistry & Molecular Biology, U. of Manitoba. Pulsed field electrophoresis system.	8,600
	$ 278,556

STRATEGIC HEALTH RESEARCH & DEVELOPMENT FUND

SEPTEMBER 15, 1989 SCIENTIFIC REVIEW COMMITTEE

Dr. J.L. Hamerton (Chairman), Department of Human Genetics,
University of Manitoba.

Dr. N. Chappell, Centre on Aging,
University of Manitoba.

Dr. H.W. Duckworth, Department of Chemistry,
University of Manitoba.

Mr. R. Ebbeling, Department of Industry, Trade & Tourism,
Province of Manitoba.

Dr. A.D. Friesen, ABI Biotechnology,
Winnipeg, Manitoba.

Dr. J. Gerrard, Department of Pediatrics & Child Health,
University of Manitoba.

Dr. W.W. Lautt, Department of Pharmacology & Therapeutics,
University of Manitoba.

Dr. J.S.C. McKee, Department of Physics,
University of Manitoba.

Dr. L. Seier, Vita Health,
Winnipeg, Mantioba.

Mr. R.W. Siemens, Department of Health,
Province of Manitoba.

SEPTEMBER 15, 1989 COMPETITION

UNIVERSITY/INDUSTRY OPERATING GRANTS

Investigator(s), Department, Institution/Company. Project Title.	Year	Award
DAKSHINAMURTI, K., Biochemistry & Molecular Biology, U. of Manitoba/E. Merck. Pyridoxine and nociception.	1	$ 20,000
JOHNSTON, J., BEGLEITER, A. & ISRAELS, L.G., Internal Medicine, U. of Manitoba/Parke-Davis. Biochemical pharmacology of 2'-deoxycoformycin.	1	25,000
MATUSIK, R.J. & WOLOSKI, B.M., Physiology, U. of Manitoba/ABI Biotechnology. Isolation and characterization of prostatic proteins that suppress immune function.	1	59,405
RIGATTO, H., Pediatrics, U. of Manitoba/Wardrop Engineering. A new monitoring strategy for the sick newborn infant.	1 2	54,455 61,880
SHALEV, S., Medical Physics, Manitoba Cancer Treatment & Research Foundation/Siemens Medical Laboratories. On-line verification of treatment accuracy.	1 2	100,000 70,000
WROGEMANN, K., Biochemistry & Molecular Biology, U. of Manitoba/Childvent. Structure and function of the 56K protein with androgen binding activity.	1	23,400
		$ 413,940

JANUARY 15, 1990 SCIENTIFIC REVIEW COMMITTEE

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Mr. R. Ebbeling, Department of Industry, Trade & Tourism,
Province of Manitoba.

Dr. A.D. Friesen, ABI Biotechnology,
Winnipeg, Manitoba.

Dr. J. Gerrard, Department of Pediatrics & Child Health,
University of Manitoba.

Dr. C. Greenway, Department of Pharmacology & Therapeutics,
University of Manitoba.

Dr. W.W. Lautt, Department of Pharmacology & Therapeutics,
University of Manitoba.

Dr. L. Seier, Vita Health,
Winnipeg, Mantioba.

Mr. R.W. Siemens, Department of Health,
Province of Manitoba.

Dr. D. Sitar, Department of Pharmacology & Therapeutics,
University of Manitoba.

JANUARY 15, 1990 COMPETITION

UNIVERSITY/INDUSTRY OPERATING GRANTS

Investigator(s), Department, Institution/Company. Project Title.	Year	Award
KRYGER, M.H., Internal Medicine, U. of Manitoba.	1	$ 40,000
RISC computers in the sleep laboratory.	2	40,000
		$ 80,000